(19) Europäisches Patentamt
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(11) **EP 1 779 031 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
16.02.2011 Bulletin 2011/07

(21) Application number: **05762165.8**

(22) Date of filing: **25.07.2005**

(51) Int Cl.:
F21V 15/01 *(2006.01)* ***F21V 33/00*** *(2006.01)*
A47F 11/10 *(2006.01)* ***F21Y 101/02*** *(2006.01)*
F21W 131/301 *(2006.01)*

(86) International application number:
PCT/PL2005/000045

(87) International publication number:
WO 2006/011821 (02.02.2006 Gazette 2006/05)

(54) **LIGHTING FITTING**

LEUCHTENVORRICHTUNG

DISPOSITIF D'ECLAIRAGE

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

(30) Priority: **29.07.2004 PL 36925504**

(43) Date of publication of application:
02.05.2007 Bulletin 2007/18

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Description

[0001] The object of the invention is a lighting fitting that can be used as a backlight for internal transparent or translucent surfaces of materials in the form of glass or plastic panes, especially glass shelves in display cabinets or glass desk/table tops.

[0002] To date no lighting fittings for illuminating transparent or translucent materials from inside have been used.

[0003] It is popular to use backlighting of edges of transparent or translucent materials such as plates in the form of shelves or desk/table tops, which is achieved by using specially constructed battens fixed to their edges, where light, emitted by a source of light comes through holes bored in the battens. Moreover, devices built of a light source accompanied by a light-reflecting mirror that directs light immediately at the edge of a plate being backlit are also commonly used for backlighting transparent or translucent materials in the form of plates. Such devices usually require relatively large surface for their fixing and they are of considerable sizes.

[0004] Polish patent claim no. P-364017 also known as WO 2005/057259 describes a lighting clip fixed on an edge of a transparent or translucent plate in a removable or permanent way and supplied by an electric system. The clip is in the form of a section, with at least one side open, built of clamping arms joined with a connector and equipped with at least one source of light placed on the internal surface. The section is in the form of a self-supporting elastic bar, open on one side, which consists of clamping arms of different length, where one of the arms is diagonal to the external plate surface or the section is in the form of a self supporting elastic bar, open on one side, which consists of clamping arms of equal length, where both arms are diagonal to the plate surface or the section is in the form of a bar, open on one side, which consists of two clamping arms which are parallel.

[0005] From the US patent description no. US 5,730,520, the lateral illumination of rotational wheel in in-line skates is known, where the lighting system is situated in wheel housing and causes the lighting elements mounted in holes at the side of the wheel to light.

[0006] From the patent description WO 97/25570, the ceiling fitting solution is known. From the US patent description no. US 5,319,531, the Illuminated flying disc with special effects lighting is known, in which design the source of light are the LEDs bringing about lighting of the internal part of the disc.

[0007] From a US publication of the patent description US 2004/0004827 A1, the solution of the light devices using light emitting diodes is known, used for the illumination of inscriptions.

[0008] From European patent application no. EP 1 208 769 A1, a table is known, which on its circumference has got light sources screened from outside, causing an inscription placed on a transparent table plate to light.

[0009] From German description of utility model no. G 85 26 033 U1, a table is known, which has got light source placed in the body, where it is stabilized, and the beam of light is directed into hood.

[0010] The lighting fitting mounted on the surface of transparent or translucent plate, supplied by an internal electric system making use of the source of light in the form of LEDs, characterized by the fact that it has an internal ring, provided with lids on its both sides, with external diameter bigger than the external diameter of the ring, and there is at least one source of light, preferably in the form of LEDs, placed on the external side surface of the internal ring, where the external surfaces of the lids are preferably parallel to each other and the lids and are preferably in the form of cylindrical disks.

[0011] The lighting fitting, characterised by the fact, that the lids and and the internal ring are provided with a hole-through in their central part, and one of the lids has the form of a bearing element.

[0012] The object of the invention has been presented as an example product shown in the drawing, where Fig. 1 presents a cross-section of the lighting fitting; Fig. 2 presents a top view of the lighting fitting with the upper lid removed and with an internal ring of a square section; Fig. 3 shows a cross-section of the lighting fitting closed with two lids; Fig. 4 presents an axonometric projection of the lighting fitting closed with two lids; Fig. 5 presents a cross-section of the lighting fitting mounted on a pipe; Fig. 6 presents an axonometric projection of the lighting fitting mounted on a pipe; Fig. 7 presents a cross-section of the lighting fitting mounted on a bearing element; Fig. 8 presents an axonometric projection of the lighting fitting mounted on a bearing element; Fig. 9 presents a cross-section of the lighting fitting mounted on a glass shelf and Fig. 10 presents an axonometric projection of the lighting fitting mounted on a glass shelf.

[0013] As it is presented in the drawing, the lighting fitting is supplied with an electric system and it is built of an internal ring **1,** which is preferably circular, that is provided with lids **2** and **3** on its both sides, one from the bottom and one from the top. The lids **2** and **3** have their external diameter bigger than the external diameter of the ring 1. There is at least one source of light **4**, preferably in the form of LEDs, placed on the external side surface of the internal ring **1**. External surfaces of the lids **2** and **3** are preferably parallel to each other and they preferably have the form of cylindrical disks clasping a translucent or transparent plate **7** that usually has the form of a glass pane. In that case, thickness of the lids **2** and **3** should be preferably as low as possible.

[0014] In case of using the lighting fitting mounted on a bearing element **6,** preferably of a round section, both the lids **2** and **3** and the internal ring **1** are provided with a hole-through **5**.

[0015] In case of using the lighting fitting as a structural component in the form of a leg of a table, desk or similar piece of furniture, one of the lids **2** and **3** or both the lids **2** and **3** form the bearing element **6.**

Claims

1. A lighting fitting having at least one source of light (4) and being mounted on the surface of transparent or translucent plate, the light fitting being supplied by an internal electric system making use of the source of light in the form of LEDs, **characterized by the fact** that it has an internal ring **(1),** provided with lids **(2)** and **(3)** on its both sides, with external diameter bigger than the external diameter of the ring **(1),** and there is at least one source of light **(4),** preferably in the form of LEDs, placed on the external side surface of the internal ring **(1),** where the external surfaces of the lids **(2)** and **(3)** are preferably parallel to each other and the lids **(2)** and **(3)** are preferably in the form of cylindrical disks.

2. The lighting fitting according to claim 1, **characterised by the fact,** that the lids **(2)** and **(3)** and the internal ring **(1)** are provided with a hole-through **(5)** in their central part, and one of the lids **(2)** or **(3)** has the form of a bearing element **(6).**

Patentansprüche

1. Eine Leuchtenvorrichtung, die mindestens über eine Lichtquelle **(4)** verfügt, auf der Oberfläche einer transparenten oder lichtdurchlässigen Platte befestigt ist und ein inneres elektrisches System aufweist, das die LED-Leuchtdioden als Lichtquelle verwendet, **gekennzeichnet dadurch, dass** sie einen Innenring **(1)** hat, der beidseitig mit den Deckeln **(2)** und **(3)** versehen ist, deren Außendurchmesser größer als der Außendurchmesser des Ringes **(1)** ist, wobei an der Außenseite des Innenringes **(1)** mindestens eine Lichtquelle **(4)** ist, vorzugsweise in Form von LED-Elementen, wo die Außenflächen von den Deckeln **(2)** und **(3)** vorzugsweise zueinander parallel sind und die Deckel **(2)** und **(3)** vorzugsweise eine Form von zylindrischen Scheiben haben.

2. Die Leuchtenvorrichtung nach dem Anspruch 1, **gekennzeichnet dadurch, dass** die Deckel **(2)** und **(3)** und der Innenring **(1)** in dem mittleren Teil mit einer Durchgangsbohrung **(5)** versehen sind und einer der Deckel **(2)** oder **(3)** die Form eines Tragelementes **(6)** hat.

Revendications

1. Dispositif d'éclairage possédant au moins une source de lumière **(4),** fixé sur la surface d'un panneau transparent ou semi-transparent, dispositif d'éclairage alimenté par un système électrique intérieur qui utilise une source de lumière sous formes de diodes LED, **caractérisé en ce qu'**il est doté d'un anneau intérieur **(1),** équipé de deux côtés de couvercles **(2)** et **(3)** dont le diamètre extérieur est supérieur au diamètre extérieur de l'anneau **(1),** étant précisé que sur le bord extérieur de l'anneau intérieur **(1)** il y a au moins une source de lumière **(4),** favorablement sous forme d'éléments LED où les surfaces extérieures de couvercles **(2)** et **(3)** sont favorablement parallèles et les couvercles **(2)** et **(3)** ont favorablement une forme de rondelles cylindriques.

2. Dispositif d'éclairage selon la revendication 1, **caractérisé en ce que** les couvercles **(2)** et **(3)** de l'anneau intérieur **(1)** sont dotés, dans leur partie centrale, d'un trou traversant **(5)** et un des couvercles **(2)** ou **(3)** a une forme d'élément porteur **(6).**

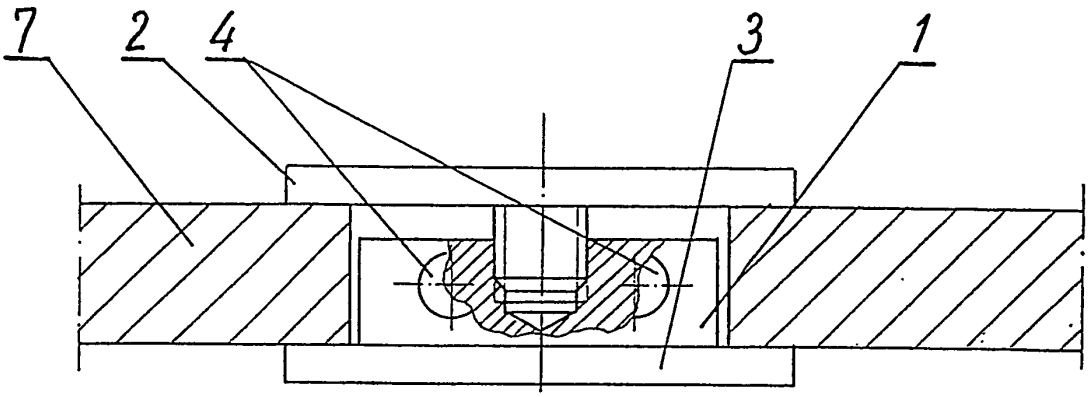


Fig. 1

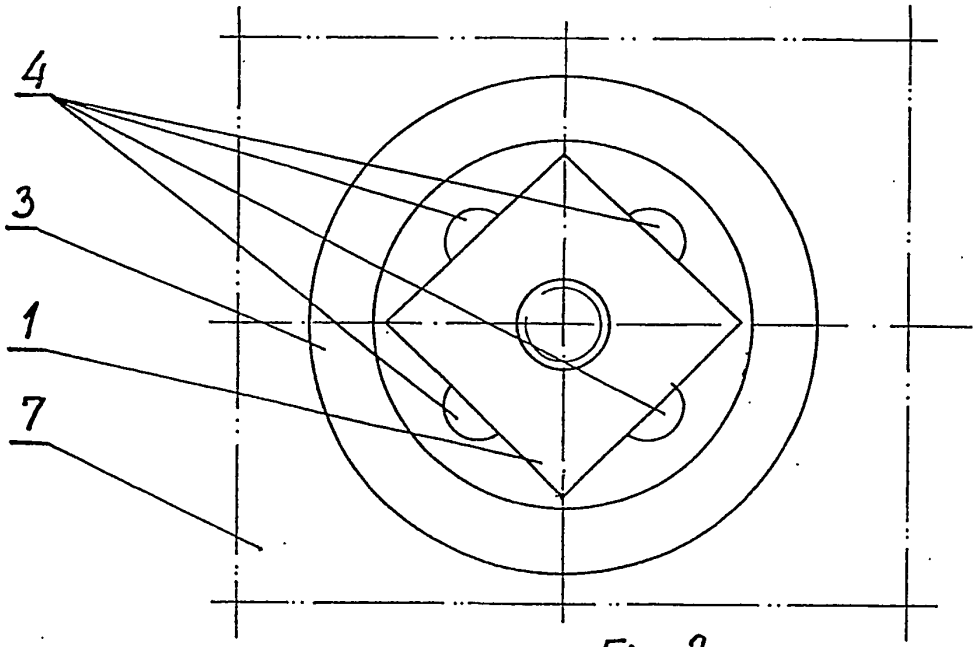


Fig. 2

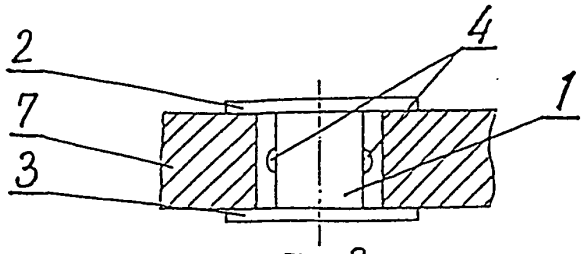


Fig. 3

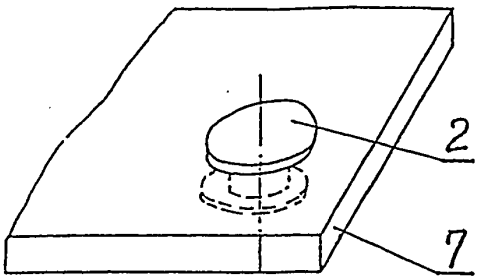


Fig. 4

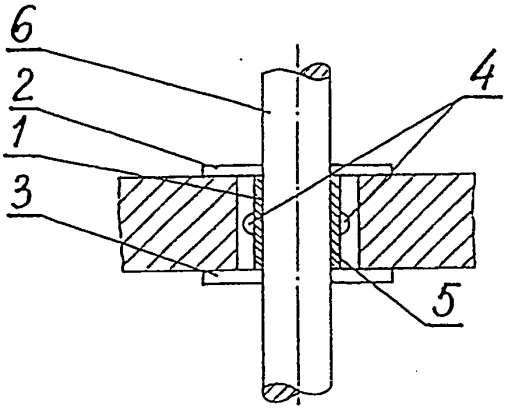


Fig. 5

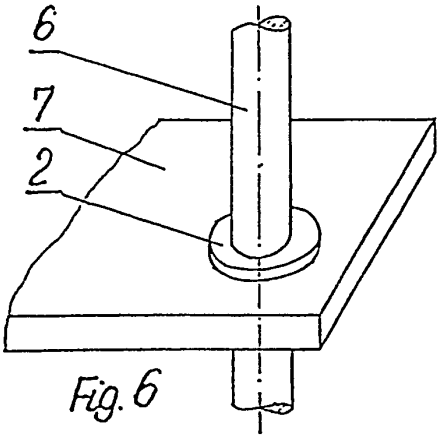


Fig. 6

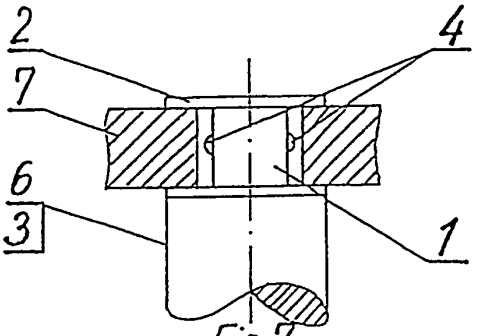


Fig. 7

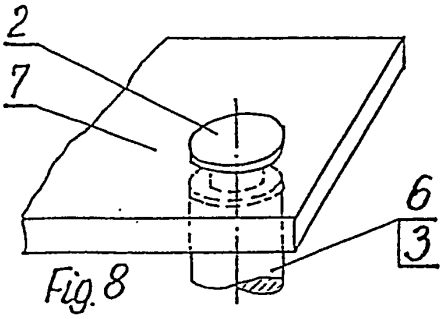


Fig. 8

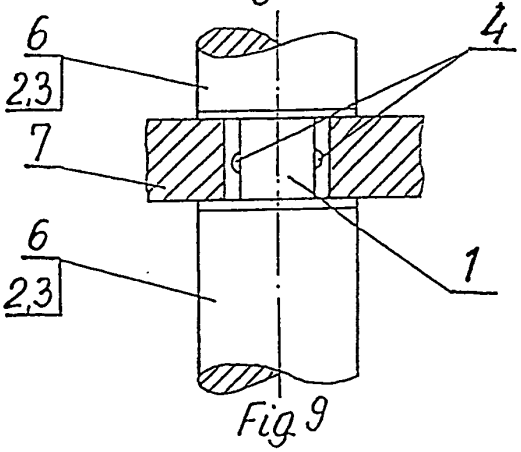


Fig. 9

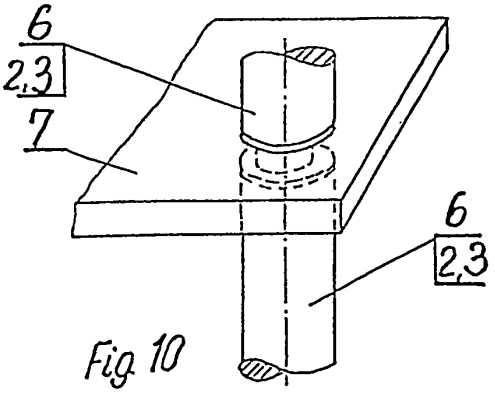


Fig. 10

REFERENCES CITED IN THE DESCRIPTION

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